

1 **CLAIMS**

2 1. A method of processing media content, the method comprising:  
3 generating a motion compensated prediction of a region of media content;  
4 receiving an indication of whether there are first and second quantities of  
5 residual samples remaining for refining the prediction, on a per-region basis; and  
6 adding of the first quantity of residual samples to the prediction to generate  
7 a refined prediction value, when so indicated; and  
8 subtracting the second quantity of residual samples from the refined  
9 prediction value to generate a final representation, when so indicated.

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11 2. A method according to claim 1, wherein the first and second residual  
12 samples are eight-bit signed samples.

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14 3. A method according to claim 1, further comprising performing an  
15 inverse discrete cosine transformation of a decoded transform-domain  
16 representation of a total residual difference to be added to the motion compensated  
17 prediction for the region of media content.

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19 4. A method according to claim 1, wherein the encoded region of media  
20 content is a block or macroblock of a frame of received media content.

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22 5. A method according to claim 1, wherein generating a prediction of  
23 media content is performed by a graphics processing accelerator under the control  
24 of a decoder application that is executing on a host computing system.  
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1           6.    A method according to claim 1, further comprising:  
2            sending any prediction control information necessary for generation of a  
3           motion compensated predicted region to an accelerator,  
4            sending an indication to the accelerator of whether the first and second  
5           quantities of residual samples are to be applied, and  
6            sending the first and second sets of residual samples to the accelerator when  
7           indicated;  
8            performing subsequent processing and/or rendering at the accelerator.

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10          7.    A method according to claim 1, wherein the region is a block or  
11          macroblock of a frame of media content.

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13          8.    A storage medium comprising a plurality of executable instructions  
14          including a subset of which that, when executed, implement a method according to  
15          claim 1.

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17          9.    A computing system comprising:  
18          a storage medium including a plurality of executable instructions; and  
19          an execution unit, coupled to the storage medium, to execute at least a  
20          subset of the plurality of executable instructions to implement a method according  
21          to claim 1.



1           **14.**   A storage medium according to claim 10, further comprising  
2 performing an inverse discrete cosine transformation of a decoded transform-  
3 domain representation of a total residual difference to be added to the motion  
4 compensated prediction for the region of media content.

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6           **15.**   A computing system comprising:  
7 a decoder application to receive a region of media content and control  
8 generation of decoded media content; and  
9 an application program interface (API), communicatively coupling the  
10 decoder application with a hardware accelerator, wherein if the API receives an  
11 indication of one or more sets of residual samples, the first set of samples is added  
12 to a motion compensated prediction to generate a refinement of a prediction value,  
13 when so indicated, and a second set of samples is subtracted from the refined  
14 prediction value to generate a final representation, when so indicated.

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16           **16.**   A computing system according to claim 15, further comprising:  
17 an accelerator, communicatively coupled to the decoder application via the  
18 API, to receive control and residual data information for subsequent processing  
19 and/or rendering.

1           **17.**    A computing system according to claim 15, wherein the decoder  
2 application generates the residual data samples utilizing an inverse discrete cosine  
3 transformation of a decoded transform-domain representation of a total residual  
4 difference to be added to the motion compensated prediction for the region of  
5 media content.

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7           **18.**    A computing system according to claim 15, wherein the region of  
8 media content is a block or macroblock of a frame.

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10          **19.**    A computing system according to claim 15, further comprising:  
11 a storage medium comprising a plurality of executable instructions; and  
12 an execution unit, coupled to the storage medium, to execute at least a  
13 subset of the plurality of executable instructions to implement the API.

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15          **20.**    A computing system according to claim 19, wherein the execution  
16 unit executes at least a subset of the plurality of executable instructions to  
17 implement the decoder application.